LATHAM&WATKINS

July 20, 2005

600 West Broadway, Suite 1800

San Diego, California 92101-3375

Tel: (619) 236-1234 Fax: (619) 696-7419

WWW.lw.com

FIRM ASEL LATE OFFICES

Dac. No. 5

FIRM / AFFILIATE OFFICES

Boston

New York Northern Virginia

Brussels Chicago

Orange County

Frankfurt

Paris

Hamburg

San Diego San Francisco

Hong Kong London

Shanghai

Los Angeles Milan

Silicon Valley Singapore

Moscow New Jersey

Tokyo Washington, D.C.

VIA MESSENGER

Mr. John H. Robertus **Executive Officer** California Regional Water Quality Control Board San Diego Region 9174 Sky Park Court, Suite 100 San Diego, CA 92123-430

Subject:

TENTATIVE ORDER NO. R9-2005-0136; NPDES PERMIT NO. CA0107433; WASTE DISCHARGE REQUIREMENTS FOR THE CITY OF OCEANSIDE, SAN LUIS REY AND LA SALINA WASTEWATER TREATMENT PLANTS AND BRACKISH GROUNDWATER DESALINATION FACILITY;

DISCHARGE TO THE PACIFIC OCEAN VIA THE OCEANSIDE OUTFALL

Mr. John H. Robertus:

On May 9, 2005, the California Regional Water Quality Control Board, San Diego Region ("Regional Board") issued the above-captioned tentative permit for discharges from the City of Oceanside's ("City") wastewater treatment plant ("Revised Permit"). Contained in the Revised Permit is an effluent limitation and monitoring requirement for acute toxicity. We represent Hydranautics, a membrane manufacturing firm which discharges to the City's wastewater treatment plant. Hydranautics believes this effluent limitation is unnecessary, redundant, and has no basis in the Clean Water Act or the Porter-Cologne Water Quality Control Act. To require it will divert public funds from other important civic projects by forcing the City expend funds on testing Hydranautics believes to be of little or no environmental benefit. The information that Hydranautics believes warrants the elimination of this effluent limitation from the Revised Permit is explained in the enclosed specific comments and its attachments.

5002 701 500 b #: 03

CHAOS JOHINGS SAN DIE GO NEGLON

Hydranautics appreciates the Regional Board's continuance of the public hearing on the Revised Permit so that it and the City could address this and other issues with your staff. Hydranautics looks forward to discussing this issue with both the City and your staff prior to the public hearing on the Revised Permit. If you have any questions or comments, please contact me at (619) 238-2876.

Very truly yours,
Kelly Richardson

Kelly E. Richardson

of LATHAM & WATKINS LLP

Enclosures

cc: John Minan, Chairman

Specific Comments on Tentative Order No. R9-2005-0136

I. Based On Plant's Dilution Factors, Only Chronic Toxicity Testing Should Be Required

Acute toxicity testing is not required under California law or regulations. The 2001/2005 California Ocean Plan ("Ocean Plan") assumes that there is no reasonable potential for acute toxicity excursions at the City's dilution factors. Chapter III, Section C, (3)(c) of the Ocean Plan states:

- (1) Dischargers shall conduct acute toxicity testing if the minimum initial dilution of the effluent is greater than 1,000:1 at the edge of the mixing zone.
- (2) Dischargers shall conduct either acute or chronic toxicity testing if the minimum initial dilution ranges from 350:1 to 1,000:1 depending on the specific discharge conditions. The [Regional Board] shall make this determination.
- (3) Dischargers shall conduct chronic toxicity testing for ocean waste discharges with minimum initial dilution factors ranging from 100:1 to 350:1. The [Regional Boards] may require that acute toxicity testing be conducted in addition to chronic as necessary for the protection of beneficial uses of ocean waters.
- (4) Dischargers shall conduct chronic toxicity testing if the minimum initial dilution of the effluent falls below 100:1 at the edge of the mixing zone.

Dilution factors at the Plant have generally been in the 80:1 to 85:1 range. The Regional Board determined the minimum initial dilution factor to be 87:1 for the discharge of up to 29.055 MGD of effluent from the Plant. Tentative Order, F-6. Because the minimum initial dilution is below 100:1, toxicity testing requirements are governed by section (4) above, and the Regional Board may only require the chronic toxicity test, not the acute toxicity test.

Acute toxicity testing at this dilution factor is also not required under federal criteria. The United States Environmental Protection Agency ("EPA") recommends that a discharger conduct only chronic toxicity testing if the dilution of the effluent falls below 100:1 at the edge of the mixing zone. EPA, Technical Support Document for Water Quality-based Toxics Control (March 1991), 58.

Therefore, under both federal and state guidelines based on initial dilution, chronic toxicity testing, rather than acute toxicity testing, is required.

II. Reasonable Potential Analysis Calculation from April 2005 Amendment to 2001/2005

Ocean Plan Determines Effluent Limitation Not Required for Acute Toxicity

Not only is a water quality-based effluent limitation for acute toxicity not supported by dilution factors, the Reasonable Potential Analysis also counsels that an effluent limitation is not required for acute toxicity.

In April 2005, the State Water Resources Control Board ("SWRCB") amended the Ocean Plan to include a procedure Regional Boards should use to determine whether Table B pollutants have a reasonable potential to exceed water quality objectives, and whether a water quality-based effluent limitation is needed for individual pollutants. Acute toxicity is a Table B Pollutant. Appendix VI of the revised Ocean Plan outlines the procedure for evaluating whether there is a reasonable potential to exceed water quality objectives. The SWRCB website also provides a link to the Ocean Plan Reasonable Potential Analysis Calculator ("RPCalc") which runs the logarithmic equation described in Appendix VI, and generates a Reasonable Potential Analysis graph detailing the outcome of the calculation, including a conclusion whether testing is required for that pollutant.

The current Plant permit requires acute toxicity testing of the City's effluent using <u>fresh</u> water species, despite the fact that the Plant discharges into the ocean. This permit contains instantaneous maximum, weekly average, and 30-day average limits. The Revised Permit, based on the new 2001/2005 Ocean Plan including the April 2005 amendment, requires that <u>marine</u> species be used for acute toxicity testing and contains a daily maximum limit for acute toxicity.

Hydranautics' consultant analyzed historical plant effluent data and the Revised Permit acute toxicity limit using RPCalc. Using data from the City, the program determined that the Reasonable Potential Analysis outcome was Endpoint 2: "An effluent limitation is not required for the pollutant." Therefore, there is not a reasonable potential for the discharge to exceed the Ocean Plan's water quality objective for acute toxicity. This finding was consistent whether the data used was from January 1999 through December 2002 (data set used by the Regional Board in their analysis), January 1999 through June 2005 (all available data), or July 2003 through June 2005 (the last three years of data). The data used to run these calculations is included in Attachment "A," and the graph generated by the RPCalc showing this result for all available data is provided in Attachment "B."

Thus, according to both the dilution factors and the revised Ocean Plan's Reasonable Potential Analysis, an acute toxicity effluent limitation should not be included in the Revised Permit; rather, the Revised Permit should require *chronic* toxicity testing.

III. Additional Reasonable Potential Analysis Factors in the Ocean Plan Further Indicate that an Acute Toxicity Effluent Limitation Is Not Required

The SWRCB provided the Regional Boards with a list of factors the Regional Boards should use to determine, based on their best professional judgment, whether an effluent

limitation is needed for a Table B pollutant if the Regional Boards had no data or insufficient data to run the Reasonable Potential Analysis calculation.

Appendix VI, Step 13 of the revised Ocean Plan states that information which may be used to conduct a Reasonable Potential Analysis based on Best Professional Judgment include: the facility type; the discharge type; solids loading analysis; lack of dilution; history of compliance problems; potential toxic impact of discharge; fish tissue residue data; water quality and beneficial uses of the receiving water; CWA 303(d) listing for the pollutant, the presence of endangered or threatened species or critical habitat, and other information." All relevant factors suggest that an acute toxicity effluent limitation need not be developed. Each of these factors is discussed below.

A. Facility Type

The Plant is a publicly owned treatment works owned by the City, and has been in operation for many years. Hydranautics shares the Regional Board's commitment to the environment and to water quality in California. Because of this commitment to the environment, Hydranautics appreciates the importance of compliance with environmental permits, including the Revised Permit.

However, in this instance, Hydranautics feels that an acute toxicity effluent limitation is unnecessary. To require it will reduce the City's ability to provide funding to other important civic projects by forcing the City to expend funds on testing that is not required based on the Plant's dilution factors, the Reasonable Potential Analysis Calculation, and other factors discussed below. Further, the chronic toxicity test is far more stringent than (and indeed, largely subsumes) the acute toxicity test.

B. Discharge Type

The discharge type has not materially changed since the last NPDES permit was issued for the Plant.

C. Solids Loading Analysis

This is not a sediment or solids related issue; thus, this factor is not applicable.

D. Lack of Dilution

As discussed above, there is an 87:1 dilution factor at the Plant. Under both state and federal regulations, there is no reasonable potential for acute toxicity excursions at this dilution factor. Also, as discussed above, Chapter III, Section C of the Ocean Plan states:

(1) Dischargers shall conduct acute toxicity testing if the minimum initial dilution of the effluent is greater than 1,000:1 at the edge of the mixing zone.

- (2) Dischargers shall conduct either acute or chronic toxicity testing if the minimum initial dilution ranges from 350:1 to 1,000:1 depending on the specific discharge conditions. The [Regional Board] shall make this determination.
- (3) Dischargers shall conduct chronic toxicity testing for ocean waste discharges with minimum initial dilution factors ranging from 100:1 to 350:1. The [Regional Boards] may require that acute toxicity testing be conducted in addition to chronic as necessary for the protection of beneficial uses of ocean waters.
- (4) Dischargers shall conduct chronic toxicity testing if the minimum initial dilution of the effluent falls below 100:1 at the edge of the mixing zone.

Dilution factors at the Plant have generally been in the 80:1 to 85:1 range. The Regional Board determined the minimum initial dilution factor to be 87:1 for the discharge of up to 29.055 MGD of effluent from the Plant. Tentative Order, F-6. Therefore, the Regional Board should apply only the chronic toxicity test to the Plant effluent.

Acute toxicity testing at this dilution factor is also not required under federal criteria. The EPA recommends that a discharger conduct only chronic toxicity testing if the dilution of the effluent falls below 100:1 at the edge of the mixing zone. EPA, Technical Support Document for Water Quality-based Toxics Control (March 1991), 58.

Hence, this factor dictates that <u>chronic</u> toxicity testing should be required rather than acute.

E. History of Compliance Problems

The Plant's few past exceedances of the acute toxicity limits based on the 1997 Ocean Plan are historical, irrelevant, and cannot suggest a "reasonable potential" that the City will fail to meet the 2001 Ocean Plan acute toxicity water quality objectives.

The 1997 Ocean Plan was replaced by the 2001 Ocean Plan. Among other revisions, the 2001 Ocean Plan replaced the acute toxicity effluent limitation with an acute toxicity water quality objective. The state found, and EPA agreed, that this methodology was more reflective of actual conditions in the ocean, whereas the previous testing methodology had been artificial.

Under the 1997 Ocean Plan, the acute toxicity effluent limitation was a measure of toxicity at the end of the pipe. <u>Freshwater</u> test species were used. The 2001/2005 test methodology utilizes a receiving water objective, intended to assess acute toxicity impacts of discharges to the Pacific Ocean using <u>marine</u> test species. The purpose of this change was to "properly evaluate effects of the discharge upon the receiving water." Final Functional

Equivalent Document, Sept 1, 2000, 17 ("FFED"). The old test method was replaced in part because the SWRCB recognized that it overstated the impacts of ammonia. FFED, 11.

The change to acute toxicity testing in the 2001 Ocean Plan was a complete overhaul of the testing methodology. Because the tests are materially different, the test results of one cannot be used to accurately predict the test results of the other.

In early 2003, over a brief period, the Plant exceeded the acute toxicity tests on only two occasions. The City attributed the excursions to ammonia. During this time and since, the Plant effluent has passed all chronic toxicity tests. Typical ammonia concentration in the City's discharge is <u>less than half</u> the total limit and is significantly below the Ocean Plan's ammonia toxicity threshold. Freshwater species are more susceptible to ammonia than are marine species. Thus, historical exceedances cited by Regional Board were based on a more susceptible species than the current test utilizes, and are not indicative of the likelihood of meeting the current limit based on marine species (which is reasonable because the present discharge is to a marine environment, not a freshwater environment).

These historical exceedances are therefore insufficient to create a "reasonable potential" that the City will exceed water quality objectives for acute toxicity. Acute toxicity has not been exceeded under the current permit for two years. Even then, those exceedances were based on the more susceptible <u>freshwater</u> species, and were likely caused by ammonia, which essentially has been found to create false positives for acute toxicity where ammonia is present. Finally, as discussed below, the chronic toxicity testing the Plant will be instituting is more stringent and largely subsumes acute toxicity testing.

F. Potential Toxic Impact of Discharge

Not setting effluent limitations for acute toxicity will not result in the discharge having a toxic impact. The purpose of the 2001/2005 Ocean Plan amendments and revised test methodology was to "properly evaluate effects of the discharge upon the receiving water." FFED, 17. The SWRCB found that this new methodology was more reflective of actual conditions in the ocean, whereas the previous testing methodology had been artificial.

Further, the old test method was replaced in part because the SWRCB recognized that it overstated the impacts of ammonia—suggesting that a discharge would be toxic when no such toxicity actually would exist in the marine environment where the discharge occurs. FFED, 11. The City has concluded that the few acute toxicity tests it failed under the 1997 Ocean Plan method likely failed due to ammonia. The City's previous permit had a discharge limit for ammonia of 50 mg/d. By definition, the City's calculated ammonia limit after dilution is protective of the marine environment. The typical ammonia concentration in the City's discharge is 19-25 mg/L, less than half the total limit.

G. Fish Tissue Residue Data

Fish Tissue Residue Data is irrelevant for acute toxicity.

H. Water Quality and Beneficial Uses of the Receiving Water and CWA 303(d) Listing for the Pollutant

There are specified beneficial uses of the Pacific Ocean, and the receiving waters in the vicinity of the Plant's discharge point are not included on the current 303(d) list.

I. Presence of Endangered or Threatened Species or Critical Habitat

There are no endangered or threatened species or critical habitat at the outfall of the Plant identified in the Revised Permit

- J. Other Information
 - a. Regional Board Must Consider Economic Effect on City Before Requiring Acute Toxicity Effluent Limitation

If the Regional Board was inclined to impose an acute toxicity effluent limitation, which we believe they cannot reasonably do, the Regional Board failed to take into account the economic effect this would have on the City, a factor which they are required to consider under a recent California Supreme Court ruling.

City of Burbank v. State Water Resources Control Board held that under state law a Regional Board must take into account economic considerations (including the cost of compliance) when adopting a discharge standard that exceeds the applicable federal standard under section 13263 and 13241 of the Porter-Cologne Act. City of Burbank v. State Water Resources Control Board, __Cal.4th__ BS060957 (April 4, 2005). As a result, the Regional Boards are obligated to consider the costs of compliance when deciding whether to establish requirements that are more stringent than federal requirements. This is the case irrespective of whether those more stringent requirements are narrative or numeric.

Requiring the acute toxicity effluent limitation is more stringent than what is required by the federal government. EPA recommends that a discharger conduct chronic toxicity testing, not acute toxicity testing, if the dilution of the effluent falls below 100:1 at the edge of the mixing zone. United States Environmental Protection Agency, Technical Support Document for Water Quality-based Toxics Control (March 1991), 58.

Performing acute toxicity would be extraordinarily expensive for the City and is unnecessary as the SWRCB has determined that the 2001 Ocean Plan acute toxicity testing standards are more protective of beneficial uses of the ocean than were the 1997 standards since the 2001 standards are more reflective of actual ocean conditions and less artificial than the 1997 standards. Further, the SWRCB provided the Regional Boards with a calculation to determine whether or not a reasonable potential exists, and as noted above, the outcome of that calculation in this case is that an acute toxicity effluent limitation is unnecessary.

b. Requiring Both Acute and Chronic Testing for the Plant is Redundant

Chronic toxicity testing is universally viewed as the more stringent of the two toxicity tests. The City consistently passes chronic toxicity testing. The City allegedly believes the only reason it has very occasionally failed acute toxicity testing is because of ammonia. The City is not exceeding the ammonia levels in its permit.

Further, requiring both acute and chronic toxicity testing in this case is redundant. The chronic toxicity testing will provide environmentally protective limitations on the Plant's discharge.

IV. Removing Acute Toxicity Testing Requirement Will Not Violate the Anti-Degradation Policy

Removing the requirement of acute toxicity testing from the Revised Permit will not violate the anti-degradation policy. Anti- Degradation requirements are outlined in 40 C.F.R. §131.12. Federal anti-degradation requirements are triggered only by a lowering of water quality. As noted above, federal and state dilution ratios and the SWRCB's RPCalc all indicate that an effluent limitation for acute toxicity is unnecessary. The replacement of the 1997 technology-based acute toxicity effluent limitations with an acute toxicity water quality objective does not result in a lowering of water quality. The change was made because the state felt, and the federal government agreed, that it was more reflective of actual ocean conditions. FFED, 26.

V. Removing Acute Toxicity Test Will Not Violate Anti-Backsliding

The SWRCB replaced technology-based acute toxicity limitations with, assuming reasonable potential, water quality based limits. SWRCB has explicitly stated, "This approach is not subject to anti-backsliding restrictions." FFED, 27. Further, EPA approved the 2001/2005 Ocean Plan, based on [its] finding that the approved amendments are consistent with the requirements of the Clean Water Act and EPA's regulations at 40 CFR 131.5 and 131.6.

VI. Conclusion

In light of the numerous factors discussed herein, Hydranautics requests that the acute toxicity effluent limit be removed from the Revised Permit, and that chronic toxicity effluent limits remain in the permit. Hydranautics requests an opportunity to meet with Regional Board staff to discuss the issues addressed in this letter. Please advise as to the Regional Board's availability for such a meeting.

Oceanside Ocean Outfall - acute toxicity (TUa)

1999	anual	Jan	Feb	Mar	Apr	May	Jun	lul	Ang	Sep	Oct	Nov	Dec
average	0.976	1.22	0.765	1.33	1.27	1.20	0.999	0.999	0.765	0.765	0.869	0.765	0.765
maximum	1.330	1.22	0.765	1.33	1.27	1.20	0.999	0.999	0.765	0.765	0.869	0.765	0.765
minimum	0.765	1.22	0.765	1.33	1.27	1.20	0.999	0.999	0.765	0.765	0.869	0.765	0.765
violations	0	0	0	0	0	0	0	0	0	0	0	0	0

Oceanside Ocean Outfall - acute toxicity (TUa)

N	2000	annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
average		1.116	1.4	1.27	0.942	0.999	0.765	0.999	1.339	1.45	0.765	1.08	1.05	1.33
maximum	_	1.450	1.4	1.27	0.942	0.999	0.765	0.999	1.339	1.45	0.765	1.08	1.05	1.33
minimum		0.765	1.4	1.27	0.942	0.999	0.765	0.999	1.339	1.45	0.765	1.08	1.05	1.33
violations		0	0	0	0	0	0	0	0	0	0	0	0	0

Oceanside Ocean Outfall - acute toxicity (TUa)

2001	annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Ang	Sep	Oct	Nov	Dec
rage	1.05	1.19	1.18	0.87	1.15	1.08	1.36	0.59	1.25	0.87	0.59	1.16	1.36
aximum	1.36	1.19	1.18	0.87	1.15	1.08	1.36	0.59	1.25	0.87	0.59	1.16	1.36
ninimum	0.59	1.19	1.18	0.87	1.15	1.08	1.36	0.59	1.25	0.87	0.59	1.16	1.36
ıtions	0	0	0	0	0	0	0	0	0	0	0	0	0

Oceanside Ocean Outfall - acute toxicity (TUa)

Dec	1.45	1.45	1.45	0
Nov	0.77	0.77	0.77	0
Oct	1.12	1.12	1.12	0
Sep	0.77	0.77	0.77	0
Aug	1.43	1.43	1.43	0
lnC	1.33	1.33	1.33	0
Jun	1.12	1.24	1.00	0
May	1.45	1.45	1.45	0
Apr	1.45	1.45	1.45	0
Mar	1.45	1.45	1,45	0
Feb	1.36	1.36	1.36	0
Jan	1.39	1.39	1.39	0
annual	1.26	1,45	0.77	0
2002	average	maximum	minimum	violations

•	1.220	0.765	1.330	1.270
CDAT SIDN	1/1/1999	2/1/1999	3/1/1999	4/1/1999
DSCR	Outfall composite	Outfall composite	Outfall composite	Outfall composite

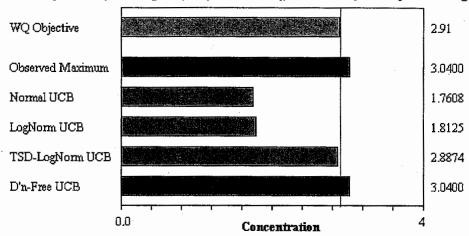
Outfall composite 5/1/1999 1,200 Outfall composite 6/1/1999 0,999 Outfall composite 7/1/1999 0,999 Outfall composite 1/1/1999 0,765 Outfall composite 1/1/1999 0,765 Outfall composite 1/1/1999 0,765 Outfall composite 1/1/2000 0,765 Outfall composite 1/1/2000 0,992 Outfall composite 4/1/2000 0,992 Outfall composite 6/1/2000 0,992 Outfall composite 6/1/2000 0,992 Outfall composite 1/1/2000 0,992 Outfall composite 1/1/2000 0,992 Outfall composite 1/1/2000 1,180 Outfall composite 1/1/2000 1,190 Outfall composite 1/1/2000 1,190 Outfall composite 1/1/2001 1,180 Outfall composite 1/1/2001 1,180 Outfall composite 1/1/2001 1,180 Outfall composite 1/1/2001 1,180																																											
composite compos	1.200	0 999	0.765	0.765	0.869	0.765	0.765	1.400	1.270	0.942	0.999	0.765	0.999	1.339	1.450	0.765	1.080	1.050	1.330	1.190	1.180	0.870	1.150	1.080	1.360	0.590	1.250	0.870	0.590	1.160	1.360	1.390	1.360	1.450	1.450	1.450	1.120	1.330	1.430	0.765	1.120	0.770	1.450
Outfall composite	5/1/1999	7/1/1999	8/1/1999	9/1/1999	10/1/1999	11/1/1999	12/1/1999	1/1/2000	2/1/2000	3/1/2000	4/1/2000	5/1/2000	6/1/2000	7/1/2000	8/1/2000	9/1/2000	10/1/2000	11/1/2000	12/1/2000	1/1/2001	2/1/2001	3/1/2001	4/1/2001	5/1/2001	6/1/2001	7/1/2001	8/1/2001	9/1/2001	10/1/2001	11/1/2001	12/1/2001	1/1/2002	2/1/2002	3/1/2002	4/1/2002	5/1/2002	6/1/2002	7/1/2002	8/1/2002	9/1/2002	10/1/2002	11/1/2002	12/1/2002
			Outfall composite			Outfall composite	Outfall composite		Outfall composite	Outfall composite		Outfall composite																															

1.56	96.
× ×××	· · · · · · · · · · · · · · · · · · ·
1.560 1.450 1.180 1.620 1.560 3.040	1.150 1.180 1.110 1.1430 1.765 1.1080 1.100 1.100 1.100 1.180 1.150 1.150 1.150 1.150 1.150 1.150 1.150 1.150 1.150 1.150 1.160 1.165 1.1765 1.180 1.180 1.180 1.180 1.180
1/9/2003 AA66341 2/6/2003 AA67303 2/19/2003 AA67738 3/12/2003 AA68438 3/14/2003 AA68530	
Outfall composite Outfall composite Outfall composite Outfall composite Outfall composite	Outfall composite

Attachment B

Reasonable Potential Analysis

Comparison of Water Quality Objective with Effluent Data after complete mixing



UCB is Upper 95% Confidence Bound for the 95th Percentile.

Data Notes: Oceanside Acute Toxicity

N = 86 Observations with 0 % censored data, Dilution Ratio = 0, Background Conc. = 0

RPA Endpoint 2.

An effluent limitation is not required for the pollutant. Monitoring may be required as appropriate.